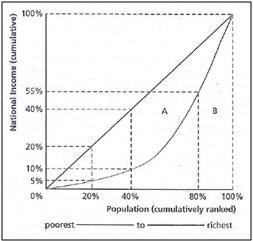
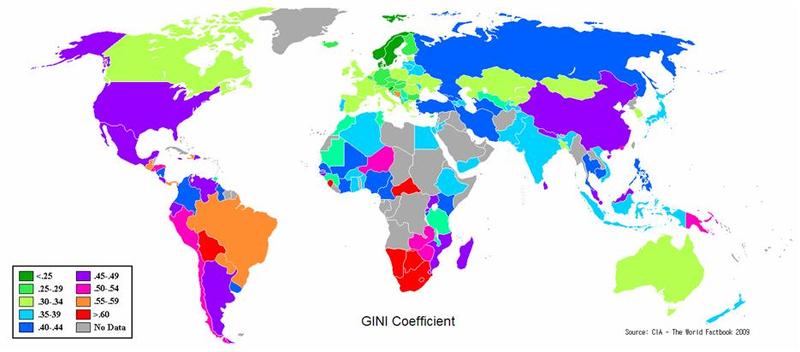
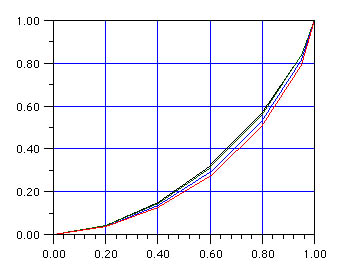
**The Lorenz Curve and Gini Coefficient**  
By: Preshita  
  
**The Lorenz Curve**

* The curve shows the proportion of national income earned by any given percentage of the population (measured from the poorest upwards)
* The diagonal 45° line denotes the line of complete equality
* The further away from the diagonal line, the more unequal the distribution of income in a country

**Diagram of the Lorenz Curve**  


The curve shows how the poorest 20% of the population only earn 5% of the national income in this population. Similarly, the poorest 40% of the population receives only 10% of the national income in this country.  
  
**Gini Coefficient**

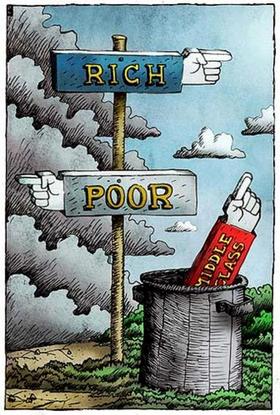
* Measures degree of income inequality in a population
* It is the ratio of the area between the Lorenz Curve and the over the area of half the square in which the curve lies
* Formula: A/(A+B) as seen in the above diagram of the Lorenz Curve
* Varies from 0 (perfect equality) and 1 (perfect inequality)

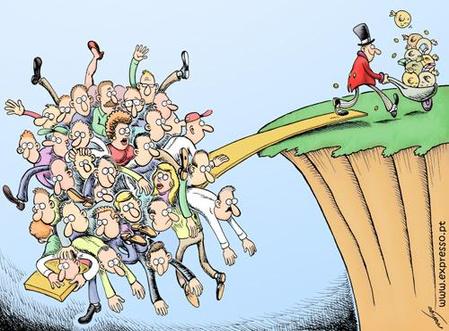
**World Countries' Gini Coefficients measured in 2009**  
  
  
**Tying the Lorenz Curve and Gini Coefficient with Development**  
The Gini Coefficient, which is derived from the Lorenz Curve, can be used as an indicator of economic development in a country. An increase in the Gini Coefficient signifies unequal distribution of income – even though national income may be rising, it may not necessarily trickle down to the country's population (Trickle-down effect). In order to narrow the gap between the rich and the poor, the patterns of a country’s Lorenz Curve and Gini coefficient must be understood well.   
  
Gini Coefficients can be used for comparisons. Economists can compare the Gini Coefficient of one country with the Gini Coefficient of another country in a particular year. They can also compare a country’s Gini Coefficient over years which may illustrate a trend of income distribution.   
  
**Income Inequality in the U.S.**  
Income inequality in the United States has increased over the recent decades. The Lorenz curves for the U.S. are shown below:  
  
The four curves are for 1970, 1980, 1990, and 1994 and are color-coded as demonstrated:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Year** | **1970** | **1980** | **1990** | **1994** |
| **Color** | **Black** | **Green** | **Blue** | **Red** |
| **Gini Coefficient** | **0.394** | **0.403** | **0.428** | **0.456** |

The increase in income inequality is notable. This is shown by the curve furthering away from the line of perfect equality as well as the increasing Gini Coefficient. The overall increase in the Gini Cofficient of America during this period is approximately 16%. Income inequality in the U.S. is further explained below with videos.

**Images on Income Inequality**



  
  
**Useful Links**  
<http://www.bized.co.uk/virtual/dc/farming/theory/th9.htm>  
<http://www.visualeconomics.com/income-distribution-by-country/>  
<http://www.maxi-pedia.com/lorenz+curve>  
<http://www.maxi-pedia.com/Gini+coefficient>  
  
**Sources**  
Economics IB Study Guide by Constantine Ziogas  
<http://upload.wikimedia.org/wikipedia/commons/3/34/Gini_Coefficient_World_CIA_Report_2009.png>  
[http://faculty.lebow.drexel.edu/McCainR//top/prin/txt/factors/dist4.html](http://faculty.lebow.drexel.edu/McCainR/top/prin/txt/factors/dist4.html)  
<http://www.youtube.com/watch?v=nffeJr0d9Us>  
<http://www.youtube.com/watch?v=21yrBbhLTV8>  
<http://www.nytimes.com/2007/06/10/business/yourmoney/10view.html>  
<http://globaleconomy.foreignpolicyblogs.com/2010/10/19/us-income-inequality-too-big-to-ignore/>  
<http://www.thestar.com/article/540066>